

Contents

Bottom-up strategy to obtain luminescent and redox-active metal complexes of nanometric dimensions V. Balzani (Bologna, Italy), S. Campagna (Messina, Italy), G. Denti (Pisa, Italy), A. Juris (Bologna, Italy), S. Serroni (Pisa, Italy) and M. Venturi (Bologna, Italy)	1
The design and preparation of transition metal triad systems for excited-state charge separation J.D. Petersen, S.L. Gahan, S.C. Rasmussen and S.E. Ronco (Clemson, SC, USA)	15
Electronic spectra and photochemistry of trichlorostannyl complexes of rhodium(III) and platinum(II) V. Pawlowski, H. Kunkely and A. Vogler (Regensburg, Germany)	23
Application of time-resolved-pulsed-EPR spectroscopy to study photoinduced electron transfer reactions. Porphyrin/quinone system M. Iwaizumi, K. Yamamoto, Y. Ohba and S. Yamauchi (Sendai, Japan)	29
Vibrational satellite structures and properties of electronic states of transition metal complexes H. Yersin, P. Huber and H. Wiedenhofer (Regensburg, Germany)	35
Spectroscopic and magnetic studies of complexes of d^{10} closed shell ions S. Kimachi, S. Ikeda, H. Miki, T. Azumi (Sendai, Japan) and G. A. Crosby (Washington, DC, USA)	43
Spin chemistry of Ru(II)-trisdiimine complex photooxidation in magnetic fields up to 17.5 Tesla D. B��r��ner and U.E. Steiner (Konstanz, Germany)	51
Interplanar interactions in the triplet dimers of Zn and metal free complexes of crowned porphyrin and phthalocyanine studied by time-resolved electron paramagnetic resonance R. Miyamoto, S. Yamauchi, N. Kobayashi, T. Osa, Y. Ohba and M. Iwaizumi (Sendai, Japan)	57
Electronic spectra of $\text{RMn}(\text{CO})_3(\alpha\text{-diimine})$ ($\text{R} = \text{H}, \text{CH}_3$): a CASSCF/CCI comparative study of the lowest singlet excited states C. Daniel, T. Matsubara and G. Stor (Strasbourg, France)	63
Tailor made coordination compounds for photochemical purposes A. von Zelewsky, P. Belser, P. Hayoz, R. Dux, X. Hua, A. Suckling (Fribourg, Switzerland) and H. Stoeckli-Evans (Neuch��tel, Switzerland)	75
Luminescent donor-acceptor platinum(II) complexes C.-W. Chan, L.-K. Cheng and C.-M. Che (Hong Kong, Hong Kong)	87

Photoexcited states of dinuclear Ru complexes bridged by proton-dissociable benzimidazole derivatives	
M. Haga, Md. Meser Ali, H. Maegawa (Mie, Japan), K. Nozaki, A. Yoshimura and T. Ohno (Toyonaka, Japan)	99
Coordinatively unsaturated excited states and DNA-binding interactions	
D.R. McMillin, F. Liu, K.A. Meadows, T.K. Aldridge and B.P. Hudson (West Lafayette, IN, USA)	105
Mechanisms of the photosubstitution of ruthenium(II) polypyridine complexes: formation of an intermediate with a monodentate polypyridine ligand and its reactions	
S. Tachiyashiki (Saitama, Japan) and K. Mizumachi (Tokyo, Japan)	113
Cr(III) photosubstitution without stereochemical change? Photoaquation of <i>trans</i> -dicyanotetram(m)ine complexes	
A.D. Kirk and S.R.L. Fernando (Victoria, B.C., Canada)	121
Photochemical and photophysical studies of tetranuclear copper(I) halide clusters: an overview	
P.C. Ford (Santa Barbara, CA, USA)	129
Infrared photodecomposition of $\text{Fe}(\text{CO})_5$ using a TEA CO_2 laser	
T. Majima (Saitama, Japan)	141
The photochemical formation of organometallic radicals from α -diimine complexes having a metal-metal, metal-alkyl or metal-halide bond	
D.J. Stufkens, J.W.M. van Outersterp, A. Oskam, B.D. Rossenaar and G.J. Stor (Amsterdam, Netherlands)	147
Photochemical mechanisms in intermolecular C-H bond activation reactions of organometallic complexes	
A.J. Lees (Preston, UK) and A.A. Purwoko (Binghamton, NY, USA)	155
$\text{Cr}(\text{CO})_5(\text{phen})$ as an intermediate of photochemical CO substitution in $\text{Cr}(\text{CO})_6$ with 1,10-phenanthroline	
S. Oishi (Kanagawa, Japan)	161
Bond activation by MLCT excitation of organometallic compounds: prompt co-photodissociation from $[\text{Cr}(\text{CO})_4\text{byp}]$	
A. Vlček, Jr., J. Vichová and F. Hartl (Prague, Czech Republic)	167
Photochemical reactions of several adducts of metalladithiolenes and metalladithiazoles - dissociation and rearrangement	
M. Kajitani, T. Fujita, N. Hisamatsu, H. Hatano, T. Akiyama and A. Sugimori (Tokyo, Japan)	175
Luminescence from supramolecules triggered by the molecular recognition of substrates	
Z. Pikramenou, J. Yu, R.B. Lessard, A. Ponce, P.A. Wong and D.G. Nocera (East Lansing, MI, USA)	181

Toward photochemical carbon dioxide activation by transition metal complexes E. Fujita, B.S. Brunschwig, T. Ogata (Upton, NY, USA) and S. Yanagida (Osaka, Japan)	195
Competitive energy and electron-transfer quenching in intramolecular processes of excited polypyridine ruthenium(II)/osmium(II) binuclear complexes M. Furue, K. Maruyama, Y. Kanematsu, T. Kushida and M. Kamachi (Osaka, Japan)	201
Intramolecular energy transfer through phenyl bridges in rod-like dinuclear Ru(II)/Os(II) terpyridine-type complexes F. Barigelletti, L. Flamigni, V. Balzani (Bologna, Italy), J.-P. Collin, J.-P. Sauvage, A. Sour (Strasbourg, France), E.C. Constable and A.M.W. Cargill Thompson (Cambridge, UK)	209
Intramolecular electron transfer within mixed-valence diruthenium complexes K. Nozaki and T. Ohno (Osaka, Japan)	215
Photoinduced electron-transfer reactions of zinc and magnesium myoglobins K. Tsukahara, M. Okada, S. Asami, Y. Nishikawa, N. Sawai (Nara, Japan) and T. Sakurai (Kanazawa, Japan)	223
Electronic coupling in oblique bisporphyrins A. Harriman, V. Heitz (Austin, TX, USA), J.-C. Chambron and J.-P. Sauvage (Strasbourg, France)	229
Photochemical reactions of dioxygen containing metalloporphyrins M. Hoshino, K. Yamamoto, J.P. Lillis, T. Chijimatsu and J. Uzawa (Saitama, Japan)	235
A time-resolved ESR study on triplet-triplet energy transfer processes in a copper(II)-free-base porphyrin dimer M. Asano-Someda, T. Ichino and Y. Kaizu (Tokyo, Japan)	243
Electron transfer reactions of geminate pairs at high exergonicities J.M. Zaleski, C. Turró, R.D. Mussell and D.G. Nocera (East Lansing, MI, USA)	249
Ligand to metal charge transfer transitions in Ru(III) and Os(III) complexes of substituted 2,2'-bipyridines K. Kalyanasundaram, S.M. Zakeeruddin and M.K. Nazeeruddin (Lausanne, Switzerland)	259